

**REMARKS**

Claims 1-70 and 72-89 are all the claims now pending in the application. Claim 89 has been added as a new claim.

**I. No Rejection of claim 80**

Applicant would like to point out that the Examiner failed to address claim 80 in the office action of November 14, 2003. Claim 80 is acknowledged as pending on the office action summary but there is no rejection listed in the Detailed Action. See pages 2-7. Thus, Applicant is unsure as to which reference(s) claim 80 stands rejected. Therefore, since the office action was not complete, if the application is not allowed in view of these foregoing remarks, Applicant requests that a new office action be issued which properly addresses all of the claims (including claim 80) so that Applicant may have a fair opportunity to refute any remarks the Examiner may have with regard to the patentability of claim 80.

**II. Claim Rejections under 35 U.S.C. § 102**

Claims 81-83 and 88 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Usui et al. (U.S. Patent No. 6,302,531). The Examiner alleges that Usui teaches all of the limitations of the claimed invention. Specifically, the Examiner alleges that Usui teaches an ink jet recording head and an ink storage unit 1 that communicate with each other through an ink flow passage. Furthermore, the Examiner alleges that Usui (see Fig. 1) teaches a valve unit 200 having a valve control chamber (area between the diaphragm 6 and the valve-seat forming

member 7), a flexible diaphragm 6 and an actuation body 8. Finally, the Examiner alleges that the valve control chamber has an entrance port 9 and an exit port 21.

With respect to claim 81 (and claim 80), Applicant submits that Usui fails to teach an actuation body for deforming the diaphragm. As is described at col. 3:50 through col. 5:4 of Usui, the diaphragm valve 6 moves in accordance with the negative pressure applied to the valve control chamber, without any aid of another member. Usui fails to teach or disclose an actuation body (i.e. a moving body) for deforming the diaphragm valve as claimed. The Examiner associates the valve seat 8 of Usui with the claimed actuation body, however, the valve seat 8 is a mere static member which the diaphragm valve 8 comes in contact with or separated from. Therefore, the valve seat 8 of Usui is not an actuation body as recited in claim 81 (and claim 80).

Further regarding claim 81, Usui fails to teach that the exit port is on the top wall of the valve control chamber. The Examiner is silent about where this feature is taught by Usui. As clearly shown in Fig. 1 of Usui, the alleged exit port 21 is located in the diaphragm 6, which constitutes the bottom wall. Thus, the alleged exit port 21 of Usui is on the bottom wall and not on the top wall as recited in claim 81.

Regarding claim 82, Usui fails to teach that the entrance port is arrange below the exit port. Once again the Examiner is silent in explaining how Usui teaches this limitation. Again, as clearly shown in Fig. 1, the alleged entrance port 9 is above the alleged exit port 21.

Regarding claim 83, Applicant submits that claim 83 is patentable at least by virtue of its dependency from claim 81 in view of the remarks above with respect to claim 81.

Regarding claim 88, Usui fails to teach that the actuation body is arranged below the diaphragm. The Examiner is completely silent about where this limitation is taught by Usui. Fig. 1 clearly shows that the alleged actuation body 8 is located directly above the diaphragm 6.

Regarding new claim 89, Applicant notes that Usui opens the exit port of the valve control chamber when the negative pressure is applied thereto. To the contrary, as recited in claim 89, the exit port must be closed when the negative pressure is applied.

In view of the above remarks, Applicant submits that Usui fails to teach or disclose each and every limitation of claims 80-83 and 88-89. Thus, Applicant requests that the rejection of claims 81-83 and 88 under 35 U.S.C. § 102(e) be reconsidered and withdrawn.

## **II. Claim Rejections under 35 U.S.C. § 103**

Claim 83 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Usui et al. in view of Burr et al. (U.S. Patent No. 5,455,615). Since claim 83 depends from claim 81 and since Burr does not cure the deficient teachings of Usui with respect to claim 81, Applicant submits that claim 83 is patentable by virtue of its dependency from claim 81 in view of the above remarks with respect to claim 81. Accordingly, Applicant requests that the rejection of claim 83 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

## **III. Allowable Subject Matter**

Claims 1, 4, 5, 33, 34-41, 66-70 and 72-74 stand allowed. The Examiner has indicated that claims 84-87 contain allowable subject matter and would be allowed if rewritten in

AMENDMENT UNDER 37 C.F.R. § 1.111  
Appln. No.: 09/545,834

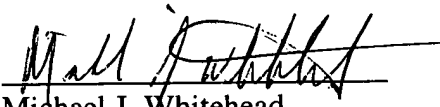
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independent form including all of the limitations of the base claim and any intervening claims. Applicant requests that the Examiner hold the rewriting of claims 84-87 in abeyance until the rejection of their parent claim (claim 81) is reconsidered.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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